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Abstract

Disproportionate minority contact (DMC) in the United States represents a critical social challenge to promoting the ideals and values of social justice. The ecological nature of DMC, a phenomenon emerging from the intersection of micro- and macro-level factors, necessitates the application of systems theories in understanding the issue and designing solutions to address it. This article illustrates the application of socio-ecological systems theory in thematic analysis, drawing associations across multiple systems between contributing factors to DMC in the juvenile justice system in North Carolina, USA. Analysis examined data from 6 focus groups comprised of 55 statewide stakeholders involved in the juvenile justice continuum. Application of socio-ecological systems theory in thematic analysis revealed structural and individual conditions associated with DMC, to include institutional racism demonstrated by biases present in stakeholders across schools and the juvenile justice system. The article presents ways in which micro to macro factors influence social challenges. Findings present an analytic strategy for constructing a practical model in qualitative research of contributing mechanisms to DMC and addressing issues of social justice in the United States.

Keywords

Socio-Ecological Theory, Focus Groups, Qualitative Inquiry, Disproportionate Minority Contact, Social Justice, Thematic Analysis

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Disproportionate minority contact (DMC) in the United States represents a critical social challenge to promoting the ideals and values of social justice. The ecological nature of DMC, a phenomenon emerging from the intersection of micro- and macro-level factors, necessitates the application of systems theories in understanding the issue and designing solutions to address it. This article illustrates the application of socio-ecological systems theory in thematic analysis, drawing associations across multiple systems between contributing factors to DMC in the juvenile justice system in North Carolina, USA. Analysis examined data from 6 focus groups comprised of 55 statewide stakeholders involved in the juvenile justice continuum. Application of socio-ecological systems theory in thematic analysis revealed structural and individual conditions associated with DMC, to include institutional racism demonstrated by biases present in stakeholders across schools and the juvenile justice system. The article presents ways in which micro to macro factors influence social challenges. Findings present an analytic strategy for constructing a practical model in qualitative research of contributing mechanisms to DMC and addressing issues of social justice in the United States. Keywords: Socio-Ecological Theory, Focus Groups, Qualitative Inquiry, Disproportionate Minority Contact, Social Justice, Thematic Analysis

In both a historical and contemporary context, ethnic minority youth have been overrepresented in the United States juvenile justice system (Piquero, 2008). Disproportionate minority contact (DMC) refers to the inequitable number of minority youth who encounter the juvenile justice continuum, to include their arrest, adjudication, and sentencing (Office of Juvenile Justice and Delinquency Prevention [OJJDP], 2012). As states grapple with redressing policies and practices to reduce DMC, this disproportion remains a significant social problem in the United States. To support DMC reduction efforts, the OJJDP provided funding to numerous states to conduct statewide assessments of DMC.

This paper demonstrates the use of socio-ecological systems theory in thematic analysis to identify mechanisms contributing to DMC in a statewide assessment project in North Carolina, USA. We apply socio-ecological systems theory to illustrate the dynamic interplay between micro- and macro-level factors contributing to DMC and discuss implications for the reduction of inequalities in the juvenile justice system. We embed this analysis in the values and principles of our disciplines and our roles as agents for social action. We articulate the intersection between social issues and theoretical and methodological considerations by providing an overview of the DMC project and socio-ecological systems theory. We then discuss a collaborative transdisciplinary research approach to characterize and summarize the insights of research participants centered on DMC reduction. We conclude with a description of the analytical process, strategies, and discuss implications for qualitative research framed in social justice issues.

Overview of the DMC Research Project

DMC occurs when the presence of ethnic minority (e.g., African American, Hispanic, Native American) youth in the juvenile justice continuum is higher than that of White youth. DMC is determined across multiple decision points in the juvenile justice continuum, to include arrests, court referrals, diversion, and detention (OJJDP, 2012). The U.S. federal government, through the OJJDP, has targeted disparities using policy initiatives spanning more than 40 years. The reauthorization of the Juvenile Justice and Delinquency Prevention Act (JJDP Act) in 2002 allotted federal support for research, training, evidence-based programs, and information dissemination regarding DMC. In response, North Carolina supported several committees in various regions in the state to focus on DMC reduction efforts. As part of an ongoing effort to meet OJJDP (federal) requirements, the North Carolina Governor's Crime Commission provided funding for an outside agency to lead a statewide assessment of factors contributing to DMC and recommendations for DMC reduction. A multidisciplinary research team from the Center for Community Safety in North Carolina was awarded the project to investigate the prevalence of ethnic disparities across the juvenile continuum and mechanisms contributing to DMC, using a multiple-methods research design. As part of the larger research project, qualitative and quantitative data were gathered from various locations across North Carolina. The multiple-methods design investigated two research questions: (a) *What are the mechanisms contributing to DMC?* and (b) *At which decision point is DMC most significant?*

DMC continues to be a widely studied social problem, utilizing an abundance of theoretical models and both quantitative and qualitative methodologies. The initial disparities leading to DMC begin at the moment youth have contact with the juvenile justice system. Previous research demonstrates that disproportionate minority representation is not limited to secure detention and confinement (Short & Sharpe, 2005). Rather, disproportionality is evident at nearly all contact points on the juvenile justice system continuum (approved, diversion, closed cases, adjudication, dismissed cases, disposition, and probation).

We entered the project under the assumption that DMC reflects decision-making processes and behavior of individuals across various points in the juvenile justice continuum. In this article, we focus on the qualitative methodology used in the research design and analysis investigating the research question *What are the mechanisms contributing to DMC*? Previous DMC reduction efforts across the United States reflect institutional efforts from various agencies and institutions, including social services, law enforcement, and public school system. The need to include various stakeholders predicates DMC reduction efforts within regional and statewide juvenile justice reform. As a result, this project selected stakeholders who were intricately tied into juvenile justice reform and youth services. The participants in this project were critical based on their knowledge of DMC and their perspectives on contributing mechanisms.

Role of the Researchers

We entered the statewide assessment of DMC in North Carolina at two distinct phases: conceptualization of the research project and the data analysis phase. We were trained in fields using socio-ecological systems theory, which value social justice and the lived experiences and diversity of individuals. We aimed to illuminate the ethnic disparities in the North Carolina juvenile justice system and present a framework to address DMC reduction. Our emphases on social justice integrate novel approaches in theory application in order to understand the persistent social problems affecting society and identify mechanisms to reduce inequalities. We use socio-ecological systems theory to outline determinants of

social problems and ways to leverage social change in improving access to resources and thriving among marginalized and disadvantaged individuals and communities. The inclusion of qualitative methods in our research necessitates the value of individuals sharing their knowledge and lived experience in designing interventions and engaging in social action. We brought this background in our roles on the statewide assessment of DMC in North Carolina, one as the Principal Investigator and the other as Research Associate.

As Principal Investigator, I entered the project at the research design phase with prior social work practice and research experience in juvenile justice systems, having previously conducted research on restorative justice approaches to reduce recidivism rates and having creating integrated models for youth competency development (see Baffour, 2006, 2009). I have also conducted research on health equity and social and racial justice issues, using a community-based research approach. The community-based approach was influential in identifying stakeholders for the focus groups and designing questions that required participants to reflect critically on practices in the North Carolina juvenile justice system.

As the Research Associate, I entered the project at the data analysis phase with prior training in mixed-methods design and knowledge of disparities in school suspension practices in the United States. The integration of multiple methods in my past research was extremely useful in understanding the dynamic structural nature of disparities in out-of-school suspension. As a community psychologist, I examine behavior from a socio-ecological systems framework and traditionally employ participatory methods, including interviews and focus groups. A major principle of community psychology is social justice and the value of using research as a critical analysis of social systems that perpetuate inequality and inequity in the United States and global community. I served as the lead analyst in the qualitative analysis phase of the project, choosing thematic analysis as a data mining method to identify structures and conceptual links across participants' perceptions and experiences (Braun & Clarke, 2006). I anticipated generating themes that would outline a visual network of mechanisms that contribute to DMC (Fereday & Muir-Cochrane, 2008; Northcutt & McCoy, 2004).

Using Socio-Ecological Systems Theory as a Framework

The adaptation and application of socio-ecological systems theory stems back to early work by Kelly (1966) and Bronfenbrenner's ecology of human development (1994). Socio-ecological systems theory demonstrates the nested and interdependent nature of human development and interactions at the personal, relational, and collective levels. The emphasis on interdependent relationships and the bidirectional action across multiple systems in the socio-ecological systems framework values the use of various methodologies in understanding complexity. Therefore, individual knowledge and behavior emerges from social interactions across varying systems (Denzin & Lincoln, 2003; Sciarra, 1999; Smith & Osborn, 2007). Social interactions under the guise of culture and language become important in how individuals ascribe meaning (Crotty, 1998; Esterberg, 2002; Flick, 2006; Guba & Lincoln, 1994). Individuals as stakeholders are critical in conceptualizing and addressing social problems and attain a collective consensus when their varied experiences become central in framing the research problem and designing solutions to address it. Using qualitative inquiry then becomes critical in contextualizing the lived experience and valuing the role of stakeholders as collaborative agents for systems change.

At the personal level, individuals construct meaning and develop behaviors in relation to others and to larger collective ideals, shared symbols, and beliefs. Simultaneously, individuals influence their social ecology by controlling the cycling of resources and constructing norms, beliefs, and culture across multiple systems. A model of socio-ecological

systems reflects an adaptation of Bronfenbrenner (1994), outlining the embedded nature of individuals within this dynamic social ecology (Figure 1). The systems model not only reflects the ways in which participants construct knowledge but also how these systems influence the knowledge of the researchers. Similarly, the researchers' knowledge and belief systems reflect interactions between formal and informal structures and largely intangible cultural norms and values (Smith & Osborn, 2007). The moment a researcher opens an interview with "How do you?" the researcher begins to elicit his or her own and the participants' mental categories and representations formed from interactions and relationships within and between social systems. The knowledge system of the researcher then becomes a filter in sifting through participants' knowledge and affects the conceptualization of codes and theme development.

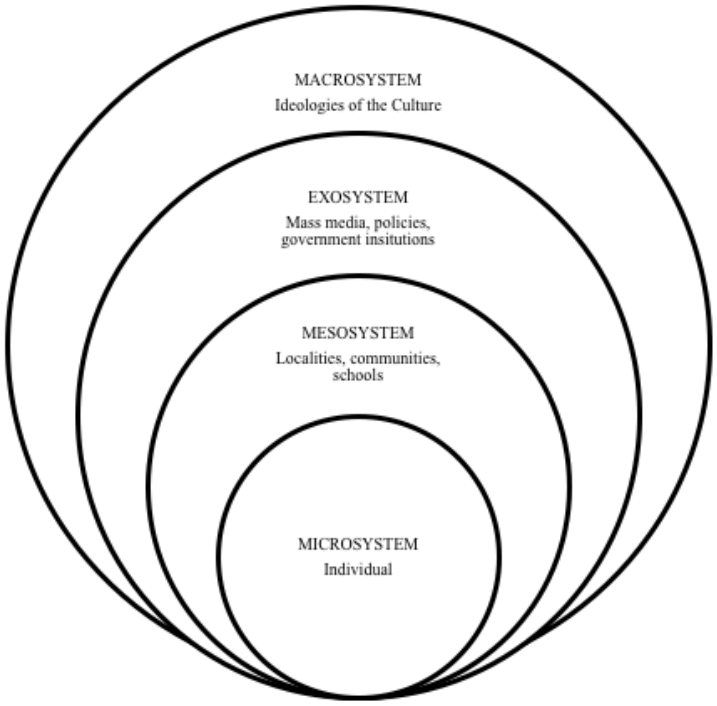

Figure 1. Socio-ecological model adopted from Bronfenbrenner's ecological model of human development. Source: "Ecological Models of Human Development," by U. Bronfenbrenner, 1994, in *International Encyclopedia of Education* (pp. 37-42), Oxford, UK: Elsevier.

The exchange between personal and relational factors contributes to a larger collective: the outermost level, macro system. The macro system, comprised of collective ideals, reflects symbols, language, and resources that move from the macro system to the micro system. Individuals within these social systems, across institutions (e.g., schools and juvenile justice system), often function in relation to the collective or macro level by perpetuating larger cultural values and social norms (Bronfenbrenner, 2000). Framing problems within a socio-ecological systems framework uncovers their complexity and reveals these underlying socio-cultural factors and points of asymmetrical power. Asymmetrical power critically examines the way in which resources cycle throughout systems, who benefits from these resources, and how resources or lack thereof affects groups. Furthermore, asymmetrical power uncovers where to target social action within and between systems. One example is research demonstrating the adverse effects of zero tolerance policies on African American and Hispanic youth (Krezmien, Leone, & Achilles, 2006; Skiba et al., 2011). Through punitive discipline policies, African American and Hispanic youth experience exclusion from school resources through out-of-school suspension for subjective, low-level

school violations more often than White youth. Correlates potentially exist between punitive discipline policies in schools and the overrepresentation of ethnic minority youth in the juvenile justice system (Nicholson-Crotty, Birchmeire, & Valentine, 2009). In response, interventions may not only target these punitive discipline policies but also address the partnership between the school and the juvenile justice system.

Applying socio-ecological systems theory as a practical strategy in framing social issues necessitates the use of qualitative inquiry, which can potentially illustrate how macro-level systems influence both meso- and micro-level behavior and attitudes. The infusion of socio-ecological systems theory within the research frame then informs design and analysis. As a result, the framework guides the methodology in projects addressing social justice issues, from the selection of participants to the analytical strategy chosen to generate findings.

Method

This project was approved in its entirety through the university's Institutional Review Board to adhere to the ethical standards outlined by the National Commission for the Protection of Human Subjects. Data described in this article were collected from a multi-methods statewide assessment of DMC in North Carolina, USA. Qualitative inquiry was designed to engage multiple stakeholders in describing their perceptions of DMC, its implications, and recommendations for DMC reduction.

Sample and Community Characteristics

The qualitative phase of the project was designed to identify factors that contribute to DMC from the perspective of several groups of key stakeholders. The recruitment of stakeholders occurred across six counties in the state, with representation from four counties with the highest rates of DMC. The research team worked with the North Carolina Department of Public Safety and the Governor's Crime Commission to identify participants with extensive knowledge of local juvenile justice issues. Participants received formal invitations from the research team or their respective entity (e.g., Department of Juvenile Justice) nominated them for participation in focus groups. Four counties, located in four subregions of the state, served as convening sites for focus groups. The recruitment process identified judges, school resource officers, social workers, mental health service providers, court counselors, and members of local DMC committees to participate in focus groups. The convenience sample comprised of 55 participants included school officials, law enforcement, judges, court counselors, clergy, social workers, and mental health service providers. The selection process was integral in framing DMC from varying perspectives of decision makers and agents in the juvenile justice continuum. No monetary incentives were provided; participants were provided a meal or light snack during the focus group sessions. During study recruitment, participants were also offered mileage reimbursement; however, no research participants took advantage of this offer.

Procedure

The research team conducted data collection over a 4-month period. Critical to successful focus groups is high-quality moderation (Morgan, 1998). The quality of data relates directly to the attentiveness, passion for the subject matter, training, and preparation of the participants. Each focus group facilitator attended a 2-hour training session conducted by the principal investigator in which the research team discussed research ethics, the role of

focus groups, qualities of an effective facilitator, review of the focus group questions, the role of the de-brief, note taking, and testing the equipment. The training allowed each team member to participate in a "mock" focus group and to provide feedback regarding logistics or to anticipate issues or concerns. Two co-facilitators led each focus group. One facilitator primarily asked questions while the second facilitator's primary responsibility was note taking and coordinating logistics (ensuring the quality of the recording and determining that all paperwork, including a signed consent from each focus group participant, was complete). Co-facilitators participated in a debriefing exercise directly following each focus group session. Members had the opportunity to review data prior to transcription and data analysis.

Data Analysis

Thematic analysis was designed to identify the structural nature of qualitative data and complex relationships across participants' experiences. A distinctive act in thematic analysis is organizing texts and codes to reflect structural conditions and socio-cultural contexts (Braun & Clarke, 2006; Guest, MacQueen, & Namey, 2012). Thematic analysis allows researchers to develop visual networks and conceptual links through careful deliberation of data at multiple levels (Fereday & Muir-Cochrane, 2008; Northcutt & McCoy, 2004). Through constant data mining, the researcher begins to cluster codes into meta-codes and identifies themes. Accordingly, researchers organize data from the semantic level using basic codes to the latent level, theme development. At the latent level, themes reflect underlying assumptions, interdependent concepts, and, in some cases, cultural and ideological norms that inform participant responses. Thematic analysis in this study addressed the nature of the first research question to understand factors that contribute to DMC. The analysis was approached from a framework aimed to explicate contributing factors and their interdependent nature based on the perspectives of key stakeholders.

In order to reduce transcription bias, the transcription of focus group sessions took place through an external consultant group. Then, two research assistants separately reviewed each transcript and digital recording for accuracy. The organization of the qualitative analysis team included two other professionals from the social work field. The three-member team independently reviewed three transcripts to develop an initial set of codes and then held four sessions to discuss generated codes and theme construction (Attride-Stirling, 2001; Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2008). Initial codes became emergent categories identified in the transcripts. A spreadsheet listed all codes, divided by each coder and transcript. This process allowed the team to review each focus group transcript and assess similarities and differences. Each member provided a definition of his or her code and discussed relationships between codes and text in focus groups. The meetings became an important space to discuss coded transcripts and identify points of divergence and convergence (Flick, 2006; Gibbs, 2007). Codes were then reorganized to represent areas in which they were in agreement (100% coder agreement), partial agreement (67% coder agreement), and no agreement. The creation of an "other" category served as a place for codes that did not have at least two-coder agreement.

The team members then reviewed the remaining three focus group transcripts and identified whether they agreed with the generated codes. Any new codes developed from this phase of the study required the team to follow the previously described procedure. The team met again to discuss the code list and resolve points of disagreement. After this process, each coder reviewed his or her codes again and began to organize them into broader categories. The team continued to discuss each code and the commonalities, and settled on a final code scheme. We aimed to group codes into larger categories that were evident across all six focus groups. The team began to review the data, drawing and mapping out relationships across the

focus groups and codes. Questions such as, "Where is this attitude or belief coming from? Where is this voice coming from?" guided the organizing structure for contributing mechanisms to DMC. For example, we identified whether the text segment was from a police officer or judge through this coding process. We match these voices to specific social systems using the socio-ecological framework. The framework allowed the team to begin to cluster codes to reflect micro- to macro-system themes.

Theme Validity

To address validity, we employed several procedural processes and verification strategies (Onwuegbuzie & Leech, 2007). A major point in the analysis included the sampling frame of statewide stakeholders who were considered "experts" and persons who had direct contact with youth across the juvenile justice continuum. The selection of these stakeholders was important in gaining the perspectives of key decision makers in youth referrals to juvenile justice facilities, and their arrests, support services, and sentencing. We held several meetings to discuss discrepancies in coding as we moved from open to selective coding (Denzin & Lincoln, 2003; Flick, 2006). The team meticulously reviewed each transcript to identify similarities and divergences across focus groups.

A spreadsheet listed each code, and then a column was developed for each focus group with three coders under each focus group. Under each code, "1" indicated that the coder agreed that the code was in the transcripts and "0" indicated a point of disagreement. We developed two levels of percentage of agreement: a within-code agreement across focus groups (50% of codes were common across all focus groups) and an inter-code agreement across all codes. This process allowed the team to see the prevalence of certain codes within focus groups and uniquely identify codes, as well as calculate a percentage of agreement among team members (percentage of agreement = 83%). Codes with less than two coder agreements led to a discussion about whether these codes were similar to previous codes. Upon completion of this step, we achieved 93% agreement across coders.

We then organized codes into clusters by asking questions of the data; for example, how does the code *racial profiling* reflect individual perceptions or larger structural issues? The code clusters were discussed by team members and each member was challenged to "make sense" of the codes and organize them into themes. After developing themes, a summary of each theme was compiled and the compiled list of themes was sent to participants via an online survey tool. All 55 participants had the opportunity to review generated themes and definitions, indicate whether they agreed or disagreed with the themes, and, if they disagreed, to provide a brief rationale. In addition, participants could add missing information or feedback through an open-ended section of the survey. The online tool reengaged participants in evaluating the accuracy of the findings and observing commonalities across regions (Esterberg, 2003; Merrick, 1999). The socio-ecological framework guided a final literature review to identify studies to support each subtheme. In creating the results section of the report to the Governor's Crime Commission, we anchored each subtheme in cited research from a variety of disciplines.

Results

We focus our results on a main theme in the analysis, *ecology of risks*, because it became critical in organizing subthemes and the interdependent nature of DMC in North Carolina. This was an organizing category, reflecting micro-system factors such as parenting and youth mental health, as well as macro-system factors such as racism. For example, we identified racism as a structural or institutional issue that also reflected biased attitudes and

behaviors of individuals across multiple systems. Institutional racism also manifested in the ways in which participants described the media's representation of African American and Hispanic communities. Participants discussed the media not only criminalizes ethnic groups but also applies these same descriptions when covering their families and neighborhoods. In this example, a participant mentioned racism (as an ideology) as a factor that contributes to DMC.

> How do you explain that if it's not racism? So, we have a whole lot of things that need to be addressed if we're going to get to the DMC issue. We're just not going to get to it by . . . I mean, we can raise all these issues, we can talk about the support group, we can talk about what we need to do; but as a county, we need to 'fess up to the fact that we hate each other because of the color of their skin or because of how their eyes are shaped or whatever.

Racism included not only codes discussing institutional practices but also implicit beliefs held by some of the participants when they described minority youth. The team identified "coded language" or implicit beliefs that participants had regarding minority communities and populations. A participant from one focus group and a member of law enforcement appeared to demonstrate these beliefs in some of their dialogue about minority youth:

> I don't think that we are, at least at my school, that we're targeting minorities; it's just that those are the ones that are making, causing the crimes there at the school. Whenever something happens, unfortunately, it is a minority that has done something illegal or has crossed the line.

The socio-ecological framework was useful in drawing connections between the school system and criminal justice system and associated biases. Attitudes and beliefs of individuals manifested in discretionary practices used by district attorneys, school principals, and teachers. One school resource officer talked about principals at schools. Several participants suggested that DMC begins with school referrals and discretionary practices by school administrators and teachers. For example, participants mentioned that teachers initiate discipline decisions with school administrators. In turn, school administrators decide whether students receive referrals to the school resource officers. In one focus group, participants discussed this played out in conversations with school administrators.

> A lot of principals know who the good kids are and who the bad kids are and who's going to stay and who to get rid of. Honestly, to say it, you have a lot of administrators at the beginning of the year say, "Hey, that kid's not going to be here long because he's going to cause problems." They automatically tell you at the beginning and they'll sit down probably in meetings with others, "We're going to get rid of this one. We're going to get rid of that one. We're going to make sure these are gone."

Discretionary practices were evident in the way people treated minority and nonminority youth. The focus groups noted that African American and Hispanic youth receive harsher punishment and sentencing. Stakeholders discussed not only school administrator and teacher practices but also formal policies in schools. For instance, all six focus groups discussed zero tolerance policies adopted by school districts and their role in increasing the number of minority youth referred to the juvenile justice system.

> The schools have created policies and procedures that automatically send kids to court for certain offenses. This "zero tolerance" policy that we have—a fight that might break out that maybe you and I might've been involved in [unintelligible], now they just send them right on downtown. So, those kind[s] of policies don't help with us addressing this issue of disproportionate minority contact.

The team then structured contributing factors within the school system related to school administrators and teacher attitudes, practices, and the zero tolerance policy. The interdependent nature of systems helped to identify more immediate factors contributing to DMC, such as youth living in single-parent homes and low levels of parental involvement. Across all focus groups, participants mentioned that many incarcerated youth have mental health challenges. Although mental health often reflects the microsystem at the individual level, several participants discussed structural challenges associated with youth who have mental illness, such as access to facilities and stigma focused on persons with mental illnesses. One comment from a focus group noted the link between mental health and DMC.

> I definitely think there is a link between . . . addictive disorders, mental health issues, and court involvement with youth. . . If they don't acknowledge that and don't seek treatment . . . then, certainly, that's going to lead to involvement with the court system or can lead to involvement with the court system or jail because they don't have any place else to house them.

Using the socio-ecological framework, we developed a model (Figure 2) to visualize the relationship between the larger theme and the subthemes. The visual model became an important tool in illustrating contributing factors to DMC back to statewide stakeholders. Through webinars, we engaged stakeholders in the analysis of data and obtained their feedback and recommendations to address DMC across the state.

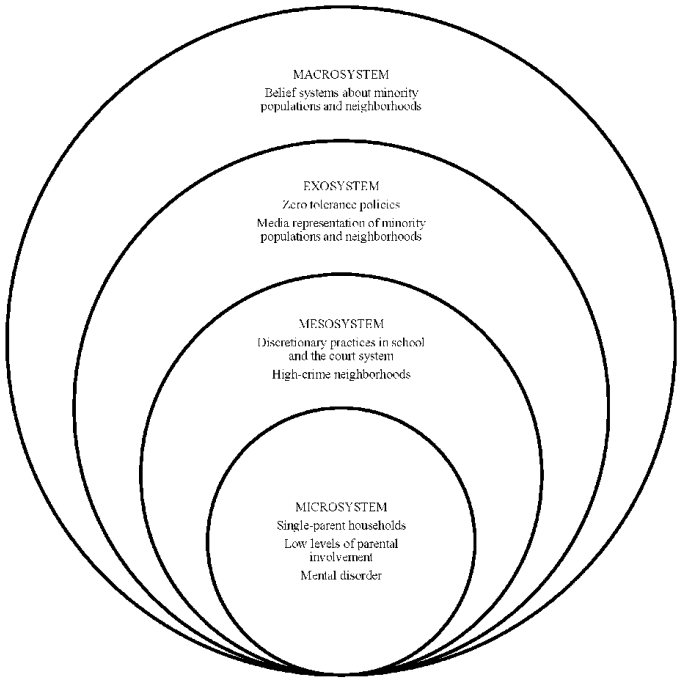

Figure 2. An ecology of risks contributing to disproportionate minority contact.

Discussion

The purpose of this paper was to provide an analytical strategy, integrating socio-ecological systems theory in thematic analysis in a statewide assessment of DMC in North Carolina, USA. The use of qualitative inquiry became a critical method in addressing the nature of the project's objectives and research question, What are the contributing mechanisms to DMC? Socio-ecological systems theory as a framework informed the research design, selection of key stakeholders, and data analysis. We aimed to provide a practical approach of using theory as an analytical framework by demonstrating the complex nature of DMC and larger challenges in reduction efforts. For example, the identification of institutional racism continues to play out in disparate policies across social institutions and their impact on African American and Hispanic communities. As demonstrated in these results, these social institutions are comprised of many stakeholders who may also have implicit beliefs regarding minority populations. The frustration inherent in battling institutional racism was evident in some focus groups, but participants challenged themselves beyond understanding DMC to work collaboratively to address it. On participant commented, "The challenge is what to do about it without blaming each other but working together so that we understand it and put initiatives in place to address what needs to be addressed."

Framing the analysis within a socio-ecological framework also demonstrated the ways in which multiple systems influence the funneling of African American and Hispanic youth into the juvenile justice system. Clearly, as the number of risks increase for youth, their chances of becoming involved in the juvenile justice system increase. For example, youth who struggle with mental health, grow up in single-parent households in violent neighborhoods, and experience suspensions will experience involvement in the juvenile justice system. Confounded with the presence of institutional racism, the structural nature of the education and criminal justice system continues to influence the presence of ethnic minority youth in the juvenile justice system.

A body of research has used socio-ecological systems to understand DMC in the United States (Graves, Frabutt, & Shelton, 2007; Miller, Cahn, & Orellana, 2012), but very few have discussed its implications as a framework on research design, analysis, and social action. Purposely selecting participants from systems affecting the juvenile justice continuum and reengaging them in data validity and dissemination potentially fostered a sense of ownership. According to Prilleltensky and Nelson (2005), the spirit of the socio-ecological framework encourages "working with people rather than on people" (p.77). The interaction of multiple stakeholders in the focus groups presented a range of experiences, as well as momentum for generating solutions and sharing models of best practices. Participants began to engage in discussion on improving collaboration across agencies and institutions. As one group of participants expressed,

[There is a need to develop] treatment team meetings [where] there can be a focus on what is in the best interest of the child . . . we need to do more to support the work of the justice system in that area. Our courtrooms, our judges are often overburdened. Our social workers are overburdened. There needs to be recognition that these are partners and the community needs to understand that we need—no one agency, schools or welfare system or the court system—can solve all of the problems. But there's that real need for collaboration, a partnership.

The application of socio-ecological systems theory formalized connections across micro and macro systems and fostered opportunities, through focus groups, for various stakeholders to engage in discussion of the challenges and issues regarding DMC and DMC reduction efforts.

Limitations

We acknowledge several limitations associated with the qualitative phase of this project. First, there is a degree of selection bias among focus groups. All participants who were solicited to participate (n = 81) did not necessarily participate, and responses were reflective only of those who volunteered (N = 55). Although the research team made efforts to identify a substantive diverse group of stakeholders across regions and counties, group members varied. For example, one focus group in one county was comprised only of School Resource Officers (SROs), while another focus group in another county was comprised of judges, mental health clinicians, SROs, and representatives from other community agencies. It is also important to note a missing voice in the analysis: youth and their parents. Therefore, the extent to which the findings reflect the accurate experience of youth and their parents was relatively unknown. Extending analysis to include youth and parents might contextualize contributing factors to DMC and dynamic interactions among youth, families, and school and juvenile settings. As a result, these findings cannot be generalized across subgroups in the juvenile justice system or larger community.

This analysis does not delineate different perspectives across subgroups (e.g., SROs versus judges) regarding DMC or across different regions of North Carolina. Furthermore, while the themes that emerged from the focus group data appear to corroborate research on risk factors that lead to DMC (Freiburger & Jordan, 2011; Nicholson-Crotty et al., 2009; Rodriguez, 2010), the anecdotal nature of DMC reduction efforts among the groups requires further examination and evidence of best practices regarding DMC prevention. Participants discussed their roles in addressing DMC, such as mentoring, working toward policies to increase the age threshold for adult charges, and improving community-police partnerships. Many of these efforts were focused on individual systems rather than on building the capacity of interdependent systems.

Applying a socio-ecological framework in data analysis requires triangulation and time to build in points of verification and self-correcting mechanisms. To address issues of intercoder agreement, we used a three-member team who met during each phase of coding and theme development. Integrating the participants into reviewing the generated themes and providing feedback presented challenges. We asked participants to add information that they considered to be missing from this analysis; only 77% of the 55 participants provided feedback. If any of the participants indicated a level of disagreement with the themes, we would be constrained to revisit the themes to establish trustworthiness of the findings.

We reviewed the literature to support each of the generated themes. Reviewing research articles to articulate and support the results required a major investment of time and collaboration by team members. We understand that pressing need to produce research findings may present a challenge for researchers who wish to use this analytical strategy. Despite these limitations, the findings contribute to practical examples of qualitative research and dialogue addressing a critical social justice issue: DMC in the U.S. juvenile justice system.

Conclusion

This article describes a useful analytical strategy in qualitative inquiry by using the socio-ecological framework in thematic analysis to address social justice. We anticipate that the strategy and results will provide practical utility for researchers in education, health, behavioral health, and public policy. The findings suggest an interdependent nature between micro- and macro-level factors that contribute to DMC, implying that efforts to reduce DMC may also require a multisystemic collaborative.

Our use of the socio-ecological framework can contribute to what Guba and Lincoln (1994) described as catalytic authenticity. Catalytic authenticity builds the capacity of systems to organize social action and generate solutions to address large social problems. From our results and the use of the socio-ecological framework, we present where stakeholders can begin to leverage DMC reduction efforts, specifically between the school and juvenile justice system. We also draw attention to macro-level factors, such as racism, and address how individual attitudes and behaviors may be both influenced by and serve as influencers of larger structural issues in society. However, understanding individuals as influencers of macro-level factors may direct efforts toward shifting individual attitudes and behaviors in order to change a larger institutional issue. Although thematic analysis is one of the most conventional methods of analysis in qualitative research, introducing new ways to approach thematic analysis as a tool for social action may contribute to future studies that address a social justice agenda.

References

Attride-Stirling, J. (2001). Thematic networks: An analytic tool for qualitative research. *Qualitative Research*, *1*, 385-405. doi:10.1177/146879410100100307

Baffour, T. D. (2006). Ethnic and gender differences in offending patterns: Examining family group conferencing interventions among at-risk adolescents. *Child and Adolescent Social Work Journal*, *23*, 557-578.

Baffour, T. D. (2009). Health realization, empowerment and restorative justice: An integrated model for youth competency development. *Journal of Justice Studies, 1,* 50-66.

Braun V., & Clarke V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101. doi:10.1191/1478088706qp063oa

Bronfenbrenner, U. (1994). Ecological models of human development. In *International encyclopedia of education* (pp. 37-42). Oxford, UK: Elsevier.

Bronfenbrenner, U. (2000). Developmental science in the 21st century: Emerging questions, theoretical models, research designs and empirical findings. *Social Development, 9*(1), 115-125.

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process.* Thousand Oaks, CA: Sage.

Denzin, N. K., & Lincoln, L. S. (2003). *Collecting and interpreting qualitative materials* (2nd ed.). Thousand Oaks, CA: Sage.

Esterberg, K. G. (2002). *Qualitative methods in social research.* Boston, MA: McGraw-Hill.

Fereday, J., & Muir-Cochrane, E. (2008). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods, 5*(1), 80-92.

Flick, U. (2006). *An introduction to qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.

Freiburger, T. L., & Jordan, K. L. (2011). A multilevel analysis of race on the decision to petition a case in the juvenile court. *Race and Justice, 1*(2), 185-201.

Gibbs, G. (2007). *Analyzing qualitative data: The Sage qualitative research kit.* Thousand Oaks, CA: Sage.

Graves, K. N., Frabutt, J. M., & Shelton, T. L. (2007). Factors associated with mental health and juvenile justice involvement among children with severe emotional disturbance. *Youth Violence and Juvenile Justice, 5*(2), 147-167.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.

Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis.* Thousand Oaks, CA: Sage.

Kelly, J. G. (1966). Ecological constraints on mental health services. *American Psychologist, 21*, 535-539.

Krezmien, M., Leone, P., & Achilles, G. (2006). Suspension, race, and disability: Analysis of statewide practices and reporting. *Journal of Emotional and Behavioral Disorders, 14*, 217-226.

Merrick, E. (1999). An exploration of quality in qualitative research: Are "reliability" and "validity" relevant? In M. Kopala & L. A. Suzuki (Eds.), *Using qualitative methods in psychology* (pp. 25-36). Thousand Oaks, CA: Sage.

Miller, K. M., Cahn, K., & Orellana, E. R. (2012). Dynamics that contribute to racial disproportionality and disparity: Perspectives from child welfare professionals, community partners, and families. *Children and Youth Services Review*, *34*, 2201-2207.

Morgan, D. L. (1998). *The focus group guidebook* (focus group kit 1). Thousand Oaks, CA: Sage Publications.

Nicholson-Crotty, S., Birchmeire, Z., & Valentine, D. (2009). Exploring the impact of school discipline on racial disproportion in the juvenile justice system. *Social Science Quarterly*, *90*, 1003-1018. doi:10.1111/j.1540-6237.2009.00674

Northcutt, N., & McCoy, D. (Eds.). (2004). *Interactive qualitative analysis: A systems method for qualitative research*. Thousand Oaks, CA: Sage.

Office of Juvenile Justice and Delinquency Prevention. (2012). *Authorizing legislation.* Retrieved from http://www.ojjdp.gov/about/legislation.html

Onwuegbuzie, A. J., & Leech, N. L. (2007). Validity and qualitative research: An oxymoron? *Quality & Quantity, 41*, 233-249.

Piquero, A. R. (2008). Disproportionate minority contact. *The Future of Children, 18*(2), 59-79.

Prilleltensky, I., & Nelson, G. B. (2005). *Community psychology: In pursuit of liberation and well-being.* New York, NY: Palgrave/MacMillan.

Rodriguez, N. (2010). The cumulative effect of race and ethnicity in juvenile court outcomes and why preadjudication detention matters. *Journal of Research in Crime and Delinquency*, *47*, 391-413.

Sciarra, D. (1999). The role of the qualitative researcher. In M. Kopala & L. A. Suzuki (Eds.), *Using qualitative methods in psychology* (pp. 37-48). Thousand Oaks, CA: Sage.

Short, J., & Sharp, C. (2005). *Disproportionate minority contact in the juvenile justice system*. Washington, DC: Child Welfare League of America.

Skiba, R. J., Horner, R. H., Chung, C., Rausch, M. K., May, S. L., & Tobin, T. (2011). Race is not neutral: A national investigation of African American and Latino disproportionality in school discipline. *School Psychology Review*, *40*(1), 85-107.

Smith, J. A., & Osborn, M. (2007). Interpretative phenomenological analysis. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (pp. 51-80). Thousand Oaks, CA: Sage.

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